

SMART SENSORS

CENTER

Smart Sensors probe the environment and modify their function in order to improve their data gathering capability. A smart sensor adapts to its environment and sends improved data to the main processing computer. A smart sensor melds sensor, signal processing, and computer technologies. Applications span medicine, precision agriculture, electronics manufacturing, wireless communication, transportation and radar.

TECHNOLOGY

The Center for Smart Sensors focuses on two core technologies; imbedded antennas and circuits for measuring length, distance, and impedance. Four support technologies include wireless communication, complex 3D simulation, numerical optimization, and user interfaces. Projects in the center include an early warning system for computer disk drive failure, a preflight test system for aging aircraft wiring, and a system to protect military personnel from being overrun by tanks. Antennas to communicate with implanted medical devices, measure the moisture of corn, and detect weather-critical features of atmospheric plasma are under development.

UTAH STATE UNIVERSITY

Can you imagine.....



An early warning system for computer disk drive failure, a preflight test system for aging aircraft wiring and a system to protect military personnel from being overrun by tanks?

ACCOMPLISHMENTS

Products under development include: Computer Sentinent Board, "Smart Wiring" in situ of aging wiring before flight, Imbedded Antenna for moisture measurement of corn, Imbedded Antenna for communication with medical implants, wireless communication system for environmental sensors on the H60 helicopter, water level sensor for irrigation, personnel avoidance safety system.

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